

Lumekoristusseadmed. Ohutusnõuded

Snow grooming equipment - Safety requirements

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 15059:2009 sisaldab Euroopa standardi EN 15059:2009 ingliskeelset teksti.

Standard on kinnitatud Eesti Standardikeskuse 30.04.2009 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.

Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 04.03.2009.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN 15059:2009 consists of the English text of the European standard EN 15059:2009.

This standard is ratified with the order of Estonian Centre for Standardisation dated 30.04.2009 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.

Date of Availability of the European standard text 04.03.2009.

The standard is available from Estonian standardisation organisation.

ICS 97.220.20

Võtmesõnad:

Standardite reprodutseerimis- ja levitamisoigus kuulub Eesti Standardikeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonilisse süsteemi või edastamine ükskõik millises vormis või millisel teel on keelatud ilma Eesti Standardikeskuse poolt antud kirjaliku loata.

Kui Teil on küsimusi standardite autorikaitse kohta, palun võtke ühendust Eesti Standardikeskusega:
Aru 10 Tallinn 10317 Eesti; www.evs.ee; Telefon: 605 5050; E-post: info@evs.ee

English Version

Snow grooming equipment - Safety requirements

Engins de damage - Exigences de sécurité

Pistenpflegegeräte - Sicherheitsanforderungen

This European Standard was approved by CEN on 10 January 2009.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents

Page

Foreword.....	4
Introduction	5
1 Scope	6
2 Normative references	6
3 Terms and definitions	7
4 List of significant hazards	8
5 Safety requirements and/or protective measures	9
5.1 General.....	9
5.2 Steering system	9
5.3 Brakes	10
5.4 Setting in motion.....	10
5.5 Tensioners for tracks	10
5.6 Driver's cab.....	10
5.7 Seat	13
5.8 Control systems and their actuators, instruments	14
5.9 Measures to prevent effects dangerous to health.....	14
5.10 Lighting systems and recognisability	14
5.11 Acoustic warning devices.....	15
5.12 Rear-view mirrors	15
5.13 Equipment holders	16
5.14 Working attachments	16
5.15 Provision for maintenance.....	16
5.16 Noise	17
5.16.1 Noise reduction by design.....	17
5.16.2 Measurement and declaration of noise emission	17
6 Verification of safety requirements and/or protective measures	18
7 Information for use	18
7.1 Accompanying documents.....	18
7.2 Machine marking.....	20
Annex A (normative) Data	22
Annex ZA (informative) Relationship between this European Standard and the Essential Requirements of EU Directive 98/37/EC	23
Annex ZB (informative) Relationship between this European Standard and the Essential Requirements of EU Directive 2006/42/EC	24
Bibliography	25

Figures

Figure 1 — Snow grooming equipment with main components	8
Figure 2 — Deflection limiting volume (DLV); front view	12

Tables

Table 1 — List of significant hazards	8
Table 2 — Test loads for snow grooming equipment.....	11
Table 3 — Special warning lamp (beacon).....	15
Table A.1 — Definition of input spectral class	22
Table A.2 — Filter cut-off frequencies.....	22
Table A.3 — Characteristics of the simulated input vibration.....	22

Foreword

This document (EN 15059:2009) has been prepared by Technical Committee CEN/TC 151 “Construction equipment and building material machines — Safety”, the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by December 2009, and conflicting national standards shall be withdrawn at the latest by December 2009.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For relationship with EU Directive(s), see informative Annexes ZA and ZB, which are integral parts of this document.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

Introduction

This document is a Type C standard as stated in EN ISO 12100-1:2003.

The machinery concerned and the extent to which hazards, hazardous situations and events are covered are indicated in the scope of this document.

When provisions of this Type C standard are different from those which are stated in Type A or B standards, the provisions of this Type C standard take precedence over the provisions of the other standards, for machines that have been designed and built according to the provisions of this Type C standard.

1 Scope

This standard applies to snow grooming equipment as defined in 3.1 and its use with attachments as described in 3.2. With the exception of rear-mounted snow tillers and front blade attachments, this standard does not deal with the specific hazards of the attachments themselves. This standard is not applicable to snowmobiles.

This standard deals with all significant hazards, hazardous situations and events relevant to snow grooming equipment, when it is used as intended and under conditions of misuse which are reasonably foreseeable by the manufacturer (see Clause 4). It also deals with hazards during commissioning, use, fault-finding and maintenance.

This standard is not applicable to snow grooming equipment manufactured before the date of publication of this document by CEN.

NOTE For travelling on public roads, national traffic regulations apply until harmonised requirements are available.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 3-7:2004, *Portable fire extinguishers — Part 7: Characteristics, performance requirements and test methods*

EN 953:1997, *Safety of machinery — Guards — General requirements for the design and construction of fixed and movable guards*

EN 1050:1996, *Safety of machinery — Principles for risk assessment*

EN 30326-1:1994, *Mechanical vibration — Laboratory method for evaluating vehicle seat vibration — Part 1: Basic requirements (ISO 10326-1:1992)*

EN ISO 2867:2006, *Earth-moving machinery — Access systems (ISO 2867:2006)*

EN ISO 3164:1999, *Earth-moving machinery — Laboratory evaluations of protective structures — Specifications for the deflection-limiting volume (ISO 3164:1995)*

EN ISO 3411:2007, *Earth-moving machinery - Physical dimensions of operators and minimum operator space envelope (ISO 3411:2007)*

EN ISO 3471:2008, *Earth-moving machinery - Roll-over protective structures - Laboratory tests and performance requirements (ISO 3471:2008)*

EN ISO 4871:1996, *Acoustics — Declaration and verification of noise emission values of machinery and equipment (ISO 4871:1996)*

EN ISO 5353:1998, *Earth-moving machinery, and tractors and machinery for agriculture and forestry — Seat index point (ISO 5353:1995)*

EN ISO 6683:2008, *Earth-moving machinery — Seat belts and seat-belt anchorages – Performance requirements and tests (ISO 6683:2005)*

EN ISO 7096:2008, *Earth-moving machinery — Laboratory evaluation of operator seat vibration (ISO 7096:2000)*

EN ISO 11688-1:1998, *Acoustics — Recommended practice for the design of low-noise machinery and equipment — Part 1: Planning* (ISO/TR 11688-1:1995)

EN ISO 12100-1:2003, *Safety of machinery — Basic concepts, general principles for design — Part 1: Basic terminology, methodology* (ISO 12100-1:2003)

EN ISO 12100-2:2003, *Safety of machinery — Basic concepts, general principles for design — Part 2: Technical principles* (ISO 12100-2:2003)

EN ISO 13732-1:2008, *Ergonomics of the thermal environment — Methods for the assessment of human responses to contact with surfaces — Part 1: Hot surfaces* (ISO 13732-1:2006)

EN ISO 13849-1:2008, *Safety of machinery — Safety-related parts of control systems — Part 1: General principles for design* (ISO 13849-1:2006)

EN ISO 14122-3:2001, *Safety of machinery — Permanent means of access to machinery — Part 3: Stairs, stepladders and guard-rails* (ISO 14122-3:2001)

EN ISO 14982:1998, *Agricultural and forestry machines — Electromagnetic compatibility — Test methods and acceptance criteria* (ISO 14982:1998)

ISO 3795:1989, *Road vehicles, and tractors and machinery for agriculture and forestry — Determination of burning behaviour of interior materials*

ISO 6393:2008, *Earth-moving machinery — Determination of sound power level — Stationary test conditions*

ISO 6394:2008, *Earth-moving machinery — Determination of emission sound pressure level at operator's position — Stationary test conditions*

ISO 9533:1989, *Earth-moving machinery — Machine-mounted forward and reverse audible warning alarm — Sound test method*

ISO 11112:1995, *Earth-moving machinery — Operator's seat — Dimensions and requirements*

ISO 14401-1:2004, *Earth-moving machinery — Field of vision of surveillance and rear-view mirrors — Part 1: Test methods*

ISO 14401-2:2004, *Earth-moving machinery — Field of vision of surveillance and rear-view mirrors — Part 2: Performance criteria*

ECE R 43:1990, *Uniform provisions concerning the approval of safety glazing and glazing materials* (revision 2)